ABSTRACT

An improved authentication system utilizes multi-factor user authentication. In an exemplary embodiment, one authentication factor is the user's speech pattern, and another authentication factor is a one-time passcode. The speech pattern and the passcode may be provided via voice portal and/or browser input. The speech pattern is routed to a speaker verification subsystem, while the passcode is routed to a passcode validation subsystem. Many other combinations of input types are also possible. For heightened security, the two (or more) authentication factors are preferably, although not necessarily, provided over differing communication channels (i.e., they are out-of-band with respect to each other). If a user is authenticated by the multi-factor process, he is given access to one or more desired secured applications. Policy and authentication procedures may be abstracted from the applications to allow a single sign-on across multiple applications.